Release notes for ENDF/B Development e-038_Sr_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:

  1. Mislabled emitted particle
     Reading ENDF file: ../e-038_Sr_000.endf (Error # 0): ZAP messed up

     `WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0`

  2. FIXME: Generic fudge unimplemented message
     reaction label 1: e- + Sr + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

  3. FIXME: Generic fudge unimplemented message
     reaction label 2: e- + Sr [excitation] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

- `fudge-4.0` Errors:

  1. Calculated and tabulated thresholds don't agree
     reaction label 0: e- + Sr [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  2. Calculated and tabulated thresholds don't agree
     reaction label 1: e- + Sr + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  3. Calculated and tabulated thresholds don't agree
     reaction label 2: e- + Sr [excitation] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  4. Calculated and tabulated thresholds don't agree
     reaction label 3: e- + e- + Sr1s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 16067. eV!`

  5. Calculated and tabulated thresholds don't agree
     reaction label 4: e- + e- + Sr2s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2200.1 eV!`

  6. Calculated and tabulated thresholds don't agree
     reaction label 5: e- + e- + Sr2p1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2012.1 eV!`

  7. Calculated and tabulated thresholds don't agree
     reaction label 6: e- + e- + Sr2p3/2 / Cross section: (Error # 0): Threshold mismatch

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```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1942.4 eV!
```

8. Calculated and tabulated thresholds don't agree
   reaction label 7: e- + e- + Sr3s1/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 350.32 eV!
```

9. Calculated and tabulated thresholds don't agree
   reaction label 8: e- + e- + Sr3p1/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 280.32 eV!
```

10. Calculated and tabulated thresholds don't agree
    reaction label 9: e- + e- + Sr3p3/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 269.53 eV!
```

11. Calculated and tabulated thresholds don't agree
    reaction label 10: e- + e- + Sr3d3/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 144.93 eV!
```

12. Calculated and tabulated thresholds don't agree
    reaction label 11: e- + e- + Sr3d5/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 143.01 eV!
```

13. Calculated and tabulated thresholds don't agree
    reaction label 12: e- + e- + Sr4s1/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 46.39 eV!
```

14. Calculated and tabulated thresholds don't agree
    reaction label 13: e- + e- + Sr4p1/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 28.47 eV!
```

15. Calculated and tabulated thresholds don't agree
    reaction label 14: e- + e- + Sr4p3/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 27.2 eV!
```

16. Calculated and tabulated thresholds don't agree
    reaction label 15: e- + e- + Sr5s1/2 / Cross section: (Error # 0): Threshold mismatch

```
       WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.1 eV!
```

- `xsectplotter` Warnings:

  1. Mislabled emitted particle
     Error: ZAP messed up

```
       stderr while processing crossSection

           WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
   ... [2 more lines]
```